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ABSTRACT

Three groups of visually impaired children--10 with rubella, 7 with retrolental fibroplasia (RLF), and 9 with blindness other than rubella or RLF--were observed for stereotypic behaviors. Ss were observed in four different environmental settings: classroom/instruction; mealtime activity/breakfast, lunch, or supper; physical education/movement activity; and unstructured leisure time. Findings suggest that sterotypic behaviors are not related to lack of vision but rather to the etiology of the condition and presence of additional handicaps. Rubella children performed a larger variety of stereotypic behaviors (primarily autistic-motility behavior) than did Ss in the RLF group. Environmental setting had a great impact on the manifestation of stereotypic behaviors among those SS who performed them, with unstructured leisure time appearing to invite more stereotypic behaviors among rubella children than classroom and physical education/movement activity. The relationship of neurological involvement with stereotypy was considered. (CL)

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Stereotyped Behaviors in Blind Children: Relationships to Motility Behaviors of Autism

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Introduction

Stereotypic behaviors are generally accepted as accompanying the disability of blindness. They have many terms including "stereotypic mannerisms" and "blindisms". These behaviors are defined as persistent and inappropriate repetition of phrases, gestures, or actions. They include: (1) Body contortions of the upper extremeties, (2) whirling around, (3) flapping arms/hands, (4) running or walking on toes, (5) head rocking, (6) body rocking, (7) head banging, (8) eye poking, (9) eye pressing, (10) eye flicking with fingers and (11) light gazing. In comparing these behaviors with those reported that are common to autism all except eye poking, pressing, and flicking are present.

A review of literature examining commonalities between blindness and autism provided very little beyond theory. The studies that were conducted consisted of motility-disturbance (Ornitz 1974), blind RLF children with autistic-like behavior (Keeler 1958), and autistic rubella children (Chess 1971). No known study has been conducted on the etiological aspects of stereotypic behaviors in blind children.

The educational impact is that children who reveal blindisms are difficult to teach. They often are in special schools and have a harder time learning. Socially, these children can be an embarrassment, depending on the severity of the behavior. Parents have a very difficult time relating and understanding this kind of child, and understandably so. Teachers have a difficult time teaching this child, as any teacher who has had responsibility for such a child can attest. By exploring the various aspects in relation to visual etiology, hopefully some answers may be found. This would open up

a whole new avenue of approaching the teaching of children with stereotypic behaviors.

Subjects and Setting

The subjects involved in this study included a total of three groups of children from the North Dakota State School for the Blind and the Minnesota Braille and Sight Saving School, state institutions for visually impaired children. The three groups included Group 1 = blind with rubella children (N=10); Group 2 = blind children with retrolental fibroplasia (RLF) (N=7); Group 3 = blind children with blindness other than rubella or RLF (N=9). All children had a degree of vision as legally blind, 20/200 or better in best eye as determined by an opthalmologist. No distinction was made between day and residential students.

Statement of Problem

This study attempted to explore stereotypic behaviors by the process of systematic investigation. Determinations will be made concerning similarities and differences of various groups of blind children performing stereotypic behaviors. Specifically these groups were: (1) those with rubella; (2) those with retrolental fibroplasia (RLF); (3) those blinded by other causes. No distinction was made between congenitally and adventitiously blind children. Further attempts were made to look at stereotypic behaviors in relation to motility disturbance behaviors of autism. The effects of neurological impairment on stereotypic behaviors was also investigated.

Within each etiological group, the Stereotypic Behaviors Chart-Blind (S.B.C.) and the shortened Developmental Scale-Autism (Ornitz 1980)

was used. Each student was systematically observed for a five-minute period in four different environmental settings. These settings were: classroom/instruction; mealtime activity/breakfast, lunch or supper; physical education/movement activity; and instructional leisure time.

Results and Discussion

These research findings reject the idea that stereotypic behaviors in the blind are the result of the loss of sight. Stereotypic behaviors are not related to the lack of vision, but rather to the etiology of the condition and presence of additional handicaps.

There appears to be a pattern regarding the origin of impairment. Where the impairment is from the conjunctiva to the retina, the presence of stereotypic behaviors of blindness are absent. However, where the impairment begins at the retina, the extended point of the visual system within the central nervous system (CNS), or anywhere between the retina and thalamus, stereotypic behaviors were noted in blind children.

But, the presence of other handicapping conditions, in addition to vision, appear to have a greater effect on the manifestation of various stereotypic behaviors. The rubella children with their multiplicity of handicapping conditions performed a larger variety of stereotypic behaviors than did the children in the RLF group (only two in this group had other handicapping conditions). The other group showed no other handicapping conditions other than one child with hemiparesis. The presence of additional handicaps had a great effect on the performance of a variety of stereotypic behaviors in the total sample.

Autistic-motility behaviors were the most prevalent in the blind

children with rubella syndrome. The rubella children also had the presence of multiple handicapping conditions, the other groups did not have. There appears to be a greater link between rubella and autistic-motility behaviors than in the case with RLF and other blind. This supports the research of Chess (1971, 1977) whose studies linked rubella with autistic-like tendencies.

There was a distinctive difference among the groups in this study regarding the impact of environmental settings. The rubella group was affected by environments and structured activity. The other group, with the exception of one child, was not affected by environments in that they did not display any stereotypic behaviors. The RLF group fell somewhere between the rubella group and other group.

The environmental setting had a great impact on the manifestation of stereotypic behaviors among those children who performed them. The classroom and physical education/movement activities have an extremely beneficial effect on decreasing stereotypic behaviors. The unstructured leisure time appeared to invite more stereotypical behaviors among rubella children.

Children blinded as a result of RLF have etiologies of retinal disease at the periphery of the visual tract within the central nervous system (CNS). This highly contrasts the etiology and stereotypical behaviors of rubella children, whose impairment is closer to the core of the CNS.

The blind children with etiologies outside the visual tract of the CNS, congenital cataracts or enucleation, for example, did not exhibit any stereotypic behaviors. The lack of vision had no effect on the manifestation of stereotypic behavior. The one exception was

the child diagnosed as having a multiple CNS impairment. This child displayed more autistic-motility behaviors than any other child in this study.

These results question many accepted beliefs in blind education. Not only do all blind children not perform stereotypic behaviors, but there are also distinct behavioral manifestations in relation to specific visual pathologies. This study would suggest that the performances of stereotypic behaviors is linked with the presence of CNS dysfunction or CNS-related dysfunction.

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